

Medical Cannabidiol Petition Subcommittee Report

Prepared for the Medical Cannabidiol Board meeting on February 14, 2020

The Medical Cannabidiol Petition Subcommittee is charged with the review petitions for new conditions, review submitted literature, research additional literature, provide additional literature to the full Board and make a recommendation on the petition to the full Board. This document contains the Subcommittee's recommendations to the Full Medical Cannabidiol Board. The petitions that the Subcommittee considered for this meeting are as follows:

1. ADHD
2. Panic Disorder

The information below is a summary of the Subcommittee's recommendations for each petition:

1. ADHD

a. Literature Review:

- The subcommittee reviewed the references forwarded by the ADHD petitioner. Refer to attachments from Dr. Shreck's January 27, 2020 e-mail for the original documents.
- Dr. Grinspoon's post does not address ADHD. The narrative and links from the www.marijuanadoctors.com were also reviewed and do not provide evidence for using medical marijuana to treat ADHD.
- Hupli's 2018 article is a single case study in Finland with a review of the literature on ADHD and cannabis. The 51 references included were mainly lab reports, animal studies, and single cases. There is no compelling evidence from these references to support the use of medical marijuana in ADHD.
- The only published prospective placebo-controlled RCT by Cooper et al utilized Sativex oromucosal spray as the form of active treatment in 30 adults with ADHD. The authors concluded, "Results did not meet significance following correction for multiple testing so are inconclusive."
- The uncontrolled retrospective series of 30 patients with treatment resistant adult ADHD with cannabis experience, from the 2015 Cannabidiol Conference of the 7th European Workshop on Cannabidiol Research, was also reviewed. This cohort of patients was an uncontrolled retrospective series.
- The 2017 review by Dr. Stoner concluded that "marijuana cannot be safely recommended for the treatment of ADHD at this time."
- In addition, a recent systematic review and metaanalysis on Cannabinoids for the treatment of mental disorders in The Lancet Psychiatry, Volume 6, Issue 12, pages 995-1010, December 1, 2019 concluded that "there is scarce evidence to suggest that cannabinoids improve.....attention deficit hyperactivity disorder....."
- In a Pubmed search, there has been no new convincing evidence supporting the use of cannabinoids to treat ADHD since the Iowa Medical Cannabidiol Board denied a similar petition in November 2018.

b. Recommendation

- The subcommittee (Liesveld, Richards, Shreck) voted unanimously to recommend denying the petition to add attention deficit hyperactivity disorder as a qualifying medical condition.

2. Panic Disorder

a. Literature Review & Resources*

- Petitioner's reference: By Soares and Campos titled "Evidences for the Anti-Panic Actions of Cannabidiol" published in *Current Neuropharmacology*, **2017**, *15*, 291-299. This review article cited 65 published references of which 63 are lab studies, animal studies, or descriptions of PD. Only two were human studies, including:
 1. By Zuardi, et al titled "Effects of ipsapirone and cannabidiol on human experimental anxiety" published in *Journal of Psychopharmacology*, **7(1) (1993)** 82-88. This is a placebo controlled, RCT studying 4 groups of 10 healthy subjects subjected to an experimentally induced anxiety test. CBD at a dose of 300mg administered an hour and twenty minutes before "stressed" demonstrated anti-anxiety effects superior to placebo. However, none of the subjects had a diagnosis of PD or any other anxiety disorder and the term "panic disorder" did not appear in the article.
 2. By Bergomaschi, et al titled "Cannabidiol Reduces the Anxiety Induced by Simulated Public Speaking in Treatment-Naïve Social Phobia Patients" published in *Neuropsychopharmacology* (**2011**) *36*, 1219-1226. This is a placebo controlled, RCT studying 24 treatment-naïve patients diagnosed with social anxiety disorder (SAD). CBD at a dose of 600 mg administered one hour and thirty minutes before "stressed" demonstrated anti-anxiety effects superior to placebo. However, none of the subjects had a diagnosis of PD and the term "panic disorder" did not appear in the article.
- Soares and Campos (above) themselves concluded: "However, it is important to stress that we are just in the first steps in the route to get a possible final approval of CBD for the treatment of PD. Therefore, new studies conducted with a reasonable number of PD patients (phase 2 and phase 3 studies) are necessary to demonstrate the efficacy and the dose range of CBD for the treatment of this anxiety disorder."
- UpToDate: Searched using term "treatment of panic disorder" yielded a link to "Pharmacotherapy for treatment of panic disorder with or without agoraphobia in adults". This lengthy review does not mention "cannabis", "marijuana", "CBD" or "cannabidiol" as either established therapy nor "treatment under study" in its text or its references. It was last updated January 20, 2020.
- *To review the original documents either refer to attachments to prior email dated Tuesday, January 28th, or copy the title of the respective articles above into your URL address line and hit "return".

b. Recommendation:

- Subcommittee members (Richards, Liesveld, Shreck) voted unanimously to recommend rejection of the Petition based upon review of the medical literature. There is a paucity of evidence regarding efficacy, dosimetry and safety in humans. Moreover, human studies presented by the petitioner do not address "panic disorder" *per se*.